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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,364	04/27/2005	Hendricus Antonius Hoogland	294-210 PCT/US	4942

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EXAMINER

HUSON, MONICA ANNE

ART UNIT	PAPER NUMBER
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1732

DATE MAILED: 09/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/527,364

Applicant(s)

HOOGLAND, HENDRICUS
ANTONIUS

Examiner

Monica A. Huson

Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 1-9 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Claims 1-9 and 20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 1 August 2006.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 10, 14, and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 recites the limitation "the respective mold cavity" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Regarding Claims 14 and 17, a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38

(Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 14 recites the broad recitation less than 10%, and the claim also recites less than 5% and less than 3% which is the narrower statement of the range/limitation. In the present instance, claim 17 recites the broad recitation plastic and the claim also recites thermoplastic which is the narrower statement of the range/limitation.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 10-11, 17, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Onishi et al. (U.S. Patent 5,725,819). Regarding Claim 10, Onishi et al., hereafter "Onishi," show that it is known to carry out a method for forming plastic products (Abstract), wherein in a mold cavity an amount of plastic is introduced in substantially plastic condition (Column 4, lines 36-46), whereupon at least one moveable element to be called a slide is moved at least partially into the respective mold cavity while compressing and/or displacing at least part of the plastic (Column 4, lines 47-65; It is noted that the remaining elements of the claim are considered to be only an intended use or consequence of the claimed method steps.).

Regarding Claim 11, Onishi shows the process as claimed as discussed in the rejection of Claim 10 above, including a method wherein, prior to the introduction of the plastic into the mold cavity, the at least one slide is set at a passage distance, determined by the distance between one end, leading in the direction of movement, of the respective slide and an oppositely located wall

part of the mold cavity, which distance is set on the basis of the melt of the plastic to be used in the mold cavity (Figures 4A-4C; Column 3, lines 54-60; Column 6, lines 34-45).

Regarding Claim 17, Onishi shows the process as claimed as discussed in the rejection of Claim 10 above, including a method wherein as material a thermoplastic is introduced with feed pressure and speed while the or each slide is brought into the mold cavity (Column 4, lines 36-65; It is noted that the remaining elements of the claim are considered to be only an intended use or consequence of the claimed method steps.), and applying hold pressure (Column 4, lines 66-67).

Regarding Claim 19, Onishi shows that it is known to use an injection mold with at least one slide, while, during an injection molding cycle, the or each slide is moved in a mold cavity of the mold at a speed (Column 4, lines 47-65); It is noted that the remaining elements of the claim are considered to be only an intended use or consequence of the claimed method steps.).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Onishi.

Regarding Claim 13, Onishi shows the process as claimed as discussed in the rejection of Claim 10 above, including showing a time frame for his slide projection step (Column 4, lines 56-65). Although he does not explicitly disclose that the time frame is at most approximately 20% of the total cycle

time, it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to occupy the least amount of time possible for the slide projection in order to conserve overall molding cycle time.

Regarding Claim 14, Onishi shows the process as claimed as discussed in the rejection of Claim 13 above, including showing a time frame for his slide projection step (Column 4, lines 56-65). Although he does not explicitly disclose that the time frame is at most approximately 10% of the total cycle time, it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to occupy the least amount of time possible for the slide projection in order to conserve overall molding cycle time.

Claims 12, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Onishi, in view of Rosato's Injection Molding Handbook (3rd ed.).

Regarding Claim 12, Onishi shows the process as claimed as discussed in the rejection of Claim 10 above, but he does not show varying the passage distance when using a plastic with a higher melt. Rosato shows that it is known to vary the cavity size based on various parameters including material selection (Page 224). Rosato and Onishi are combinable because they are concerned with a similar technical field, namely, methods of injection molding. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Rosato's varied passage distance during Onishi's molding process in order to optimize the use of various molding materials.

Regarding Claim 15, Onishi shows the process as claimed as discussed in the rejection of Claim 10 above, but he does not disclose a specific closing pressure. Rosato shows that it is known to carry out a method wherein the closing pressure for a mold is smaller compared to conventional closing pressures (Pages 261-262). It would have been prima facie obvious to one of

ordinary skill in the art at the time the invention was made to use Rosato's optimized closing pressure during Onishi's molding process in order to reduce operating costs and increase efficiency of the process.

Regarding Claim 16, Onishi shows the process as claimed as discussed in the rejection of Claim 10 above, but he does not disclose a specific filling pressure. Rosato shows that it is known to carry out a method wherein the material is introduced into the mold cavity with a filling pressure of less than 350 bar (Page 224). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Rosato's filling pressure during Onishi's molding process in order to most accurately and efficiently fill the mold cavity.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Onishi, in view of Hinduja et al. (U.S. Patent 5,424,017). Onishi shows the process as claimed as discussed in the rejection of Claim 17 above, but he does not show using an overflow cavity. Hinduja et al., hereafter "Hinduja," show that it is known to carry out a method wherein in the or each mold cavity overflow spaces are provided which are filled with the plastic, wherein the parts filled in the overflow spaces are used as engaging elements for extracting a product formed in the respective mold cavity (Figure 2, element 18). Hinduja and Onishi are combinable because they are concerned with a similar technical field, namely, methods of injection molding. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Hinduja's overflow cavities during Onishi's molding process in order to avoid overfilling the cavity and producing a malformed article.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica A. Huson whose telephone

number is 571-272-1198. The examiner can normally be reached on Monday-Friday 6:45am-3:15pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Monica A Huson

September 18, 2006